

**BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554**

In the Matter of)	
)	
Revision of the Commission's Rules to)	
Ensure Compatibility With Enhanced 911)	
Emergency Calling Systems)	
)	CC Docket No. 94-102
Amendment of Parts 2 and 25 to Implement the)	
Global Mobile Personal Communications by)	
Satellite (GMPCS) Memorandum of)	
Understanding and Arrangements; Petition of the)	IB Docket No. 99-67
National Telecommunications and Information)	
Administration to Amend Part 25 of the)	
Commission's Rules to Establish Emissions)	
Limits for Mobile and Portable Earth Stations)	
Operating in the 1610-1660.5 MHz Band)	

**COMMENTS OF THE
TELECOMMUNICATIONS INDUSTRY ASSOCIATION**

The Telecommunications Industry Association ("TIA") hereby submits comments in response to the Report and Order and Second Further Notice of Proposed Rulemaking in the above-captioned proceeding.¹

¹ *Report and Order and Second Further Notice of Proposed Rulemaking*, FCC 03-290 (released Dec. 1, 2003) ("FNPRM").

I. INTRODUCTION

TIA is the leading trade association representing the communications and information technology industry, with 700 member companies that manufacture or supply the products and services used in global communications. TIA thus has substantial interest in current and future Federal Communications Commission (“Commission” or “FCC”) decisions related to the scope of communications services and devices that should be required to provide access to emergency services.

The comments that follow are focused on the Second Further Notice of Proposed Rulemaking (“FNPRM”) portion of this proceeding. More specifically, TIA’s comments are limited to the continued consideration of issues related to the particular requirements of E911 over multi-line telephone systems (“MLTS”).

The Report and Order concludes that state and local governments are in the best position to devise rules to ensure that E911 is effectively deployed over MLTS in their jurisdictions. However, TIA believes that a lack of uniformity, and limited technical depth reflected in some state regulations for E911 handling by MLTS systems presents a serious product design and development cost barrier for equipment manufacturers and is troubling to system operators as well. A patchwork of requirements threatens to increase equipment costs by fracturing production markets, destroying efficiencies as manufacturers seek to design products to meet varying state and local requirements. Coordination of state laws affecting MLTS systems is thus critical. The FCC should assume an oversight role. TIA commends the Commission for referring states to a single source for a nationally consistent blueprint for state law.

II. DISCUSSION

The Commission seeks further comment on its role in requiring MLTS to deliver call-back and location information. Local service provider central offices and E911 tandem offices currently only support ISDN and CAMA (“Centralized Automatic Message Accounting”) E911 signaling, which provide a single number for both automatic number information/automatic location information (“ANI/ALI”). If an end user moves away from the street address known to the ALI database, and then dials 911, the ALI associated with the user's current physical location will not provide accurate location information. Because businesses need to switch their calls through the PSTN, i.e., through central offices and E911 tandem offices, the MLTS operator is restricted by PSTN switches that are unable to support protocols that signal ANI and ALI separately. In addition, while PSAPs can receive separate ANI and ALI from wireless providers, most are currently unable to receive separate ANI and ALI from E911 tandem offices and will need additional equipment to address this issue.

Some examples of types of MLTS services that have special E911 technical needs:

Temporary Phones. A single MLTS can support both full service phones and phones that can only make calls, not receive them. For example, some businesses operate as follows: When employees arrive in the morning, they walk up to an arbitrary phone. They enter their personal extension number and password. The phone logs into the MLTS with that extension number. When the employees leave for the day, they log out of their phones. Once logged out, the phone has no extension number whatsoever. There is no number one could dial to reach the

phone. If someone is walking through such a businesses' office after normal business hours and suddenly needs to dial 911, the 911 call should succeed. However, the MLTS could not comply with a hypothetical regulation requiring the MLTS to send to the PSAP a call back number specific to the one phone that dialed 911. That phone has no phone number. (The MLTS could send as a call back number the business's main number.) Attempting to apply a single regulation uniformly to all phones attached to a MLTS system would be problematic.

In-building wireless users. A single MLTS can support both wired and wireless phones. Attempting to apply a single regulation uniformly to a MLTS system supporting both wireless and wired users is problematic. Increasing the accuracy of location identification will require a significantly longer development interval. For example, algorithms for wireless MLTS phones are significantly more complex. If the FCC requires the accuracy of location information to be significantly less than 40,000 square feet, more complex, and in all likelihood completely different, location mechanisms will be needed. The exploration, review, analysis, and development of new location technologies will increase substantially the development time by MLTS equipment makers, as well as the implementation time by telecommunications service providers and PSAPs.

Voice over IP users. A single MLTS can support both traditional circuit switched phones and Voice over IP phones. Attempting to apply a single regulation uniformly to a MLTS system supporting both traditional and VoIP users is problematic. IP phones can be connected via modem to an MLTS that is far away

from the phone's physical location. Some users can move a phone extension to a location that the MLTS cannot track. For example, suppose a Washington, DC based user travels to Denver, Colorado, and places a call through the PSTN to an IP port on his/her home Washington, DC MLTS, which happens to be configured for remote access. The user would be able to draw dial tone from the Washington, DC MLTS, dial 911, and the Washington, DC MLTS would have no way of determining that the user is in Denver.

The Commission seeks comment on how the growth of IP telephony will affect the manufacture and deployment of new MLTS equipment and its use for 911/E911 calls. As noted above, users can place calls via the internet very far away from the MLTS that routes the call into the PSTN. It would be useful for the FCC to require the Local Exchange Carriers ("LECs") to accept a 911 call including an area code, and route it to the appropriate PSAP. For example, suppose a MLTS in a Denver central office is providing service to an IP Telephone, and the IP Telephone happens to be physically located in Washington, DC. It would be useful if the MLTS in Denver were to send the digit string "1-202-911" to the Denver central office, and have the call answered by the PSAP in Washington rather than by the PSAP in Denver.

It would also be useful for the FCC to require PSAPs to give their staff the ability to transfer a 911 call to PSAP in a distant area code if a 911 call happens to terminate to the MLTS's area code rather than to the area code the caller is physically in.

If a person dialing 911 had an IP telephone, and had just moved the phone from one Local Area Network ("LAN") jack to another jack, the location information for that

phone would not yet be updated in the ALI database. As noted earlier in these comments, MLTS can only send one phone number to the central office. That one phone number could either be the one associated in the ALI database with the caller's new location, or it could be the caller's phone number, usable for call back.

With regard to MLTS manufacturers, the Commission seeks comment as to whether E911 features represent an opportunity for manufacturers to improve the value of their equipment. TIA member companies in fact are constantly innovating in their product portfolios, adding features and functionalities in response to consumer demand. The equipment industry is fiercely competitive and, as such, companies seeking to increase or sustain their market share must convince consumers of the value of their products. Such efforts, however, do not occur in a vacuum. The improvements in features and functionalities must always be measured against the associated costs.

TIA supports NENA's proposed new section to Part 64 of the rules requiring that LEC central offices be provisioned to permit connection of MLTS equipment for E911 purposes "in any accepted industry standard format, as defined by the FCC, requested by the MLTS operator."

Finally, TIA supports NEC's recommendation that the Commission adopt the ANSI T1.628-2000 ISDN network interface standard as an "accepted industry standard," thereby requiring LECs to enable MLTS operators to use a more efficient means of interfacing with the network than is currently available in most instances.

III. CONCLUSION

TIA member companies design, develop and manufacture communications equipment, including equipment used as part of systems that are or may be affected by the Commission's oversight authority. TIA therefore has a direct and substantial interest in the emergency services related activities of the Commission, including the subject matter of this E911 FNPRM. TIA requests that the Commission take into consideration the views expressed above, which support a cautious approach to extending the reach of its E911 rules in MLTS systems.

Respectfully submitted,

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